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Application/Control Number: 09/768,976
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 17

Application Number: 09/768,976

Filing Date: January 23, 2001

Appellant(s): MARTIN ET AL

David M. Sigmond
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 22 May 2003.

I. *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

II. *Related Appeals and Interferences*

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

III. *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

Claims 1-40 are rejected.

IV. *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

V. *Summary of Invention*

The summary of invention contained in the brief is correct.

VI. *Issues*

The appellant's statement of the issues in the brief is substantially correct. Issue (1), whether claims 22 and 34 should be objected to under 37 C.F.R. § 1.75, should be petitioned.

The rejection of claims 4 and 11 is withdrawn. Claims 4 and 11 are allowable.

VII. *Grouping of Claims*

For the first issue, the claims 22 and 34 do not stand and fall together.

For the second issue, the claims do not stand and fall together and are grouped as follows:

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- (i) Claims 1-3, 5, 8-10, and 12-18
- (ii) Claims 20-23
- (iii) Claim 24
- (iv) Claim 25
- (v) Claims 26
- (vi) Claim 27
- (vii) Claim 28
- (viii) Claim 29
- (ix) Claim 30
- (x) Claims 31-34
- (xi) Claim 35
- (xii) Claim 36
- (xiii) Claim 37
- (xiv) Claim 38
- (xv) Claim 39
- (xvi) Claim 40

For the third issue, the claims stand and fall together and are grouped as follows:

- (i) Claims 4 and 11

For the fourth issue, the claims stand and fall together and are grouped as follows:

- (i) Claims 6 and 19

For the fifth issue, claim 7 is the sole claim.

VIII. Prior Art of Record

(i) Arya et al	(US 5,739,982)	4-1998
(ii) Battu et al	(US 5,841,610)	11-1998
(iii) Jacques, Alan M.	(US 5,612,839)	3-1997

X. Grounds of Rejection

Claims 1-3, 5, 8-10, and 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Arya et al. (USPN 5,739,982).

Regarding Claims 1-3, 5, 8-10, 12 and 13, Arya et al. shows (Fig. 1) a disk drive (130) with a transducer assembly (Col. 2, In. 67, Col. 3, Ins. 1-2) comprising a storage disk (134) having a storage surface, an actuator arm (146) that moves relative to the storage disk (134), a

load beam (Fig. 4, (58)) secured to the actuator arm (146), a slider (48) including a data transducer (Col. 2, In. 67, Col. 3, Ins. 1-2), and a head suspension (50) that secures the slider (46) to the load beam (Fig. 4, (58)) and positions the slider (46) near the storage disk (134), the head suspension (50) maintaining the slider at a pitch static attitude of less than approximately zero degrees, between approximately zero and negative two degrees, less than approximately negative one degree, and less than approximately negative two degrees (Col. 7, Table 1).

Regarding Claims 14-18, the disc drive set forth above will have necessarily been made using all the claimed method steps.

Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arya et al. (USPN 5,739,982) in view of Jacques (USPN 5,612,839).

Regarding Claim 6, Arya et al. shows all the features described, *supra*, except a padded slider that includes an air bearing surface and at least one pad that extends below the air bearing surface. Jacques shows a padded slider (Fig. 4a) that includes an air bearing surface (channel between pads (101) and (103)) and at least one pad (101, 103) that extends below the air bearing surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk drive of Arya et al. with a padded slider that includes an air bearing surface and at least one pad that extends below the air bearing surface as taught by Jacques. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the disk drive of Arya et al. with a padded slider that includes an

air bearing surface and at least one pad that extends below the air bearing surface as taught by Jacques in order to house a magnetic head for recording and playback of a data storage medium and as a means to reduce friction on and damage to the storage medium.

Regarding Claim 19, the padded slider that includes an air bearing surface and at least one pad that extends below the air bearing surface set forth above will have necessarily been made using the claimed method step.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arya et al. (USPN 5,739,982) in view of Battu et al. (USPN 5,841,610).

Regarding Claim 7, Arya et al. shows all the features described, *supra*, except a ramp positioned near an outer diameter of the storage disk. Battu et al. shows a ramp (Fig. 1, (80) positioned near an outer diameter of the storage disk. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk drive of Arya et al. with a ramp positioned near an outer diameter of the storage disk as taught by Battu et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the disk drive of Arya et al. with a ramp positioned near an outer diameter of the storage disk as taught by Battu et al. in order to create a landing area for the head gimbal array (HGA) rather than allowing the (HGA) to rest on the storage medium as in most known smaller disc drives, thus avoiding damage to the (HGA) and storage medium.

XI. Response to Arguments

Appellant's arguments filed May 22, 2003 have been fully considered but they are not persuasive.

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Appellant asserts on Page 7 :

Arya et al fails to teach “ ... the head suspension maintaining the slider pitch at a pitch static attitude of less than zero degrees during the data transfer operations, wherein stiction between the slider and the storage disc is substantially less than if the pitch static attitude was greater than zero degrees during the data transfer operations.” and “... says nothing about the amount of stiction between the slider and the disk...”.

Pitch Static Attitude (PSA) is “ the ability of the read/write head to ‘ride’ with the fluctuations of the laminar flow of air generated by the disk rotation and with the uneven disc surface.” (See Hudson et al, col.2, ln 15-29). Therefore, the PSA of Arya et al is during data transfer operations (while the disk is rotating, and the air flow generates a lifting force against the air bearing surface of the slider). As shown by Arya et el in Table I, Arya et al teaches sliders with PSA less than zero degrees. The claimed feature of the stiction being less than if the PSA was greater than zero degrees must be inherent, since the only way that Appellant teaches reducing the stiction is to use a PSA that is less than zero degrees. Arya et al teaches this feature and must also have stiction less than if the PSA was greater than zero degrees. Therefore, the rejection over Arya et al is deemed proper and has been maintained.

Appellant asserts on Page 12 :

Arya et al fails to teach “the slider includes an air bearing surface (ABS) and a pad (or pads) that extends below the ABS and contacts the storage disk when stiction occurs.”

Arya et al teaches a slider with an ABS (Col.4, lns. 49-60). The rejection based on Arya et al in view of Jacques is relied on to teach the above. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

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USPQ 375 (Fed. Cir. 1986). Therefore, the rejection over Arya et al is in view of Jacques deemed proper and has been maintained.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully Submitted,



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Art Unit 2653

MSB

June 26, 2003

Conferee
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